REMARKS

Applicant thanks the Examiner for withdrawing the finality of the prior Office Action and for withdrawing the rejection under 35 U.S.C. §112, first paragraph, and for a thorough search. By this amendment, claims 1, 12, 21, 33, 35 and 36 are amended. Claim 37 is added. Thus, Claims 1-21 and 23-37 are pending in the application.

I.   DRAWINGS

The Office Action states that when the application is allowed, formal drawings will be required. Accordingly, Applicant will file formal drawings upon receipt of a Notice of Allowance.

II.   ISSUES RELATING TO PRIOR ART

A.   STATUS OF CLAIMS

Claims 1, 3-8, 11-16, 19, and 33 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over RFC 2582. Claims 2, 9, 10, 17, 18, 21, 23-32, and 35 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over RFC 2582 in view of Chapman. Claims 36 is rejected under 35 U.S.C. §103(a) as allegedly unpatentable over RFC 2582 in view of Lackshman et al. Although the Office Action groups claim 33 with claims 1, 3-8, 11-16, 19, and 33, the Office Action relies on Lacksman et al. in the explanation of the rejection of claim 33.

B.   INDEPENDENT CLAIMS 1, 12, 21, 33, 35 AND 36

Claims 1, 12, 21, 33, and 35 have been amended to clarify the characteristics of a duplicate acknowledgement. The Office Action contends that storing the excess number of duplicate acknowledgements would have been obvious, because using the number of excess duplicate acknowledgements as a threshold allegedly would have been obvious. Applicants disagree, because the references do not support the rationale of the Office Action.

RFC 2582 (at page 3) teaches recording "the *highest sequence number* transmitted in the variable 'recover' (emphasis added). RFC 2582 also teaches that "[i]f this ACK acknowledges all of the data up to and including 'recover', then the ACK acknowledges all the intermediate segments sent between the original transmission of the lost segment and the receipt of the third duplicate ACK ... If this ACK does *not* acknowledge all of the data up to and including 'recover,' then this is a partial ACK. In this case, retransmit the first unacknowledged segment." Thus, RFC 2582 stores the last sequence number transmitted in the variable "recover", and then waits until an acknowledgement is received for the segment having the sequence number of recover to exit the fast transmit. In this way, RFC 2582 tracks whether the duplicate acknowledgements have been received, or whether a full acknowledgements or partial acknowledgement occurred. Consequently, under RFC 2582, there is no need to store any threshold. To add unnecessary lines of code to store an unneeded variable would have made an implementation harder to read, understand, and maintain. Therefore, based on RFC 2582, one of ordinary skill in the art would not have thought to store the excess number of duplicate acknowledgements.

Further, as amended, claim 1 now recites <u>determining a number representing how many</u> <u>additional packets were acknowledged with the duplicate acknowledgements, which are thereby</u> <u>co-acknowledged packets</u>. Claims 12, 21, 33, 35, and 36 include similar recitations. RFC 2582 has absolutely no teaching about how to process co-acknowledged packets as defined in the amended claims. Consequently, one of ordinary skill in the art, based on RFC 2582, would not have found determining the number of co-acknowledged packets to be obvious.

As amended, Claim 1 further recites that <u>the excess number of duplicate</u> <u>acknowledgements is a number is determined based upon a difference between a count of</u> <u>consecutive duplicate acknowledgement packets and the number of co-acknowledged packets</u>.

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Claims 12, 21, 33, 35, and 36 include similar recitations. RFC 2582 does not disclose computing a difference of two numbers, and therefore claims 1, 12, 21, 33, 35 and 36 would not have been obvious. Further, since the number of excess duplicate acknowledgements is based on the difference between the number of duplicate acknowledgements and the number of co-acknowledged packets, it also would not be obvious to compute and store the number of excess duplicate acknowledgements.

Similarly, RFC 2582 does not disclose "taking a network packet transmission recovery action based upon said excess number of duplicate acknowledgements", as recited in claim 1, because RFC2582 does not disclose or suggest taking a recovery action based on a difference of any two numbers. Claims 12, 21, 33, 35, and 36 either have similar recitations, or specify a specific transmission recovery action. Therefore, claims 1, 12, 21, 33, 35, and 36 also would not have been obvious, because RFC 2582 does not disclose or suggest taking any action based on a difference of two numbers. In view of the above, Claims 1, 12, 21, 33, 35, and 36 are allowable. Reconsideration and withdrawal of the rejections are respectfully requested.

C.   DEPENDENT CLAIMS

The Office Action does not allege that Chapman et al. or Lakshman et al. correct the above deficiencies in RFC 2582 or in the combinations of RFC 2582 with Lakshman et al. and RFC 2582 with Chapman et al. Each of claims 2-11, 13-19, and 22-34, and 37 depends upon one or more of independent claims 1, 12, and 21, and therefore includes all features of the independent claims, and is allowable for at least the same reasons set forth above for the independent claims. Further, although each of the remaining dependent claims 2-11, 13-19, and 22-32 contain features that are separately patentable over the claims from which they depend, in view of the patentability of the independent claims, the remaining dependent claims and other features are not further argued at this time to expedite prosecution. Additionally, many of the

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claims argued contain other independently patentable features that are not separately argued at this time to expedite the prosecution.

D.   NEW CLAIM 37

New claim 37 recites:

> if the number of duplicate acknowledgements is equal to or less than the number of co-acknowledged segments determining the network packet transmission recovery action based on the number of duplicate acknowledgements; and
> if the number of duplicate acknowledgements is not equal to or less than the number of co-acknowledged segments determining the network packet transmission recovery action based on the excess number of duplicate acknowledgements.

The Office Action does not establish, and nothing in the references provides, that the method of RFC 2582 taken alone or as modified by Lakshman et al. and/or Chapman et al. includes taking a recovery action based on whether the number of duplicate acknowledgements is equal to or less than the number of co-acknowledgements. Therefore, new claim 37 should be allowed.

III.   CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all pending claims are patentable over the art of record. Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

No extension fee is believed to be due. However, to the extent necessary, Applicants petition for an extension of time under 37 C.F.R. § 1.136. The Commissioner is authorized to

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charge any fee that may be due in relation to this application to our Deposit Account No. 50-

1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: August 30, 2004

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Christopher J. Palermo
Reg. No. 42,056

1600 Willow Street
San Jose, California 95125-5106
Telephone No.: (408) 414-1080 x202
Facsimile No.: (408) 414-1076

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